

Exhibit A
Performance Requirements
Modular Sleeping Bag System

Performance	Sleeping Bag Patrol	Sleeping Bag ICW	Bivy Sack	All three together
Protection temperatures	32-50 degrees F	0-32 degrees F		-20 degrees F* -50 degrees F**
Protection elements			All forms of precipitation	
Compressed size			15% decrease over the material dictated in MIL-DTL-31011A, Type I	No more than 1 cubic foot+
Weight	< or = 2.85 lbs	< or = 4.0 lbs		< or = 9.5 lbs^
Insulation	Attached in a way to minimize migration and cold spots Insulation value (clo) shall not be lower than 3 ^{+/-} 0.3	Lightweight and compressible Attached in a way to minimize migration and cold spots Insulation value (clo) shall not be lower than 4.5 ^{+/-} 0.4		
Inner dimensions#	L - 87 to 89 inches W – 35 to 37 inches at widest point and 22 to 24 inches at the narrowest point	L – 81 to 83 inches W- 34 to 36 inches at widest point and 21 to 23 inches at the narrowest point	L – The Length of the Bivy will be sufficient to accommodate both sleeping bags when joined together W – widest 35inches +/- 1” W- narrowest 28 inches +/- 1”	The narrowest point of both bags and the Bivy will be in the footbox area approx. 5” from the bottom with the widest point in the torso area approx. 60”-65” from the bottom of the footbox.
Fastener	Top and bottom ventilation Noiseless and easy to operate Reversible, double pull, water repellent	Top and bottom ventilation Noiseless and easy to operate Reversible, double pull, water repellent Self-repairable	Compatible with each individual bag or both bags together Appropriate for continuous use in hostile and austere environments	

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	Self-repairable Snag-resistant channeling Protection from inadvertent opening Prevent heat loss Min crosswise breaking strength of 250 lbs Width (incl tape) does not exceed 1 inch Color matches material Allows for rapid egress	Snag-resistant channeling Protection from inadvertent opening Prevent heat loss Min crosswise breaking strength of 250 lbs Width (incl tape) does not exceed 1 inch Color matches material Allows for rapid egress	Allows for rapid egress	
Secondary Attaching System				Easy to operate in cold temperatures and using gloves Permits bags to maintain a constant spatial relationship to one another Can be used to close bag if primary fastener fails Does not compromise rapid egress
Chest Collar		Full width of the bag Adjustable Same insulating properties as the rest of the bag		
Hood	Adjustable at the crown and side	Adjustable at the crown and side		

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	Same insulating properties as remainder of bag One-handed operation Barrel Lock – 5lb force for 15 seconds after 168 hours	Same insulating properties as remainder of bag One-handed operation Barrel Lock – 5lb force for 15 seconds after 168 hours		
Footbox	Same insulating properties as remainder of the bag Anatomically designed	Same insulating properties as remainder of the bag Anatomically designed		
Flammability	CPAI-75	CPAI-75		
Laundering	Drying temperatures between 140 and 160 degrees F	Drying temperatures between 140 and 160 degrees F	Drying temperatures less than 100 degrees F	AATCC-96, Test VI, A for five cycles
Compressional recovery	> or = 80% of loft after laundering	> or = 80% of loft after laundering		
Stitching			Seam tape will be translucent or a subdued color near the non-face side of the cover material Applied only of the inside cover	No exposed raw edges, run-offs, twists, pleats, puckers or open seams Stitch type will prevent seam separation and edge fraying No binding cloth Able to withstand normal usage during the warranty period and five launderings
Basic Material	Synthetic with a	Synthetic with a water	Fully waterproof	

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	water repellant finish Minimum tear strength of 9.0 lbs in the warp and filling Minimum spray rating of 90,90,80 Processed so that no insulation can move through them	repellant finish Minimum tear strength of 9.0 lbs in the warp and filling Minimum spray rating of 90,90,80 Processed so that no insulation can move through them	Meet or exceed applicable requirements in MIL-DTL-31011B, Type 1, class 4, paragraphs 3.3-3.6, 3.8, 3.9.4, 3.10.1,3.11-3.13 with a 10% reduction in weight and no impact on MVTR Tensile strength at least 120 pounds in both warp and fill directions	
Thread				Water repellant A-A-50199 standards Color will match end item
Color	Foliage green 504	Urban grey 505	Top - universal camouflage Bottom - foliage green 504	
Labeling	Stitched on all four sides to the center of the foot box Ink will be waterproof and legible after 5 washings Item identification and instructions for care, cleaning and laundering (Sample at Attachment 1) Foliage green 504	Stitched on all four sides to the center of the foot box Ink will be waterproof and legible after 5 washings Item identification and instructions for care, cleaning and laundering (Sample at Attachment 1) Foliage green 504 with black print Print size no less than font 10 Nomenclature, contract	Stitched on all four sides to seam tape which in then heat sealed to the top inside flap near the head end. Item identification and instructions for care, cleaning and laundering (Sample at Attachment 2) Foliage green 504 with black print Print size no less than font 10 Ink will be waterproof and	

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	with black print Print size no less than font 10 Nomenclature, contract number, lot number, contractor's name	number, lot number, contractor's name	legible after 5 washings	
Warranty	Standard warranty or 1 year whichever is greater	Standard warranty or 1 year whichever is greater	Standard warranty or 1 year whichever is greater	

* user is dressed in medium weight polypropylene undershirt and drawers and standard cushion sole socks; *system is tested on a standard Army pad.*

** user is dressed as described in * and fleece bib and jacket; *cold weather coat and trouser liners, extreme cold weather socks, and balaclava. The system is tested on a standard Army pad.*

+ using large compression bag

^ plus large compression bag

see figure 1 for measurement locations – measurements will be taken with the bag turned inside out